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10/082,089	02/26/2002	Hitoshi Takayanagi	020232	8614

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EXAMINER

NOTE, JANIS L

ART UNIT	PAPER NUMBER
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1756

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/082,089	Applicant(s) TAKAYANAGI ET AL.	
	Examiner Janis L. Dote	Art Unit 1756	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8 and 12-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8 and 12-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/14/04</u> . | 6) <input type="checkbox"/> Other: _____ |

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1. The examiner acknowledges the cancellation of claims 1-4, 6, 7, 10, and 11, the amendments to claim 8, and the addition of claims 13-17, filed on Jun. 17, 2004 (Amdt0617040). Claims 8 and 12-17 are pending.

2. The examiner has considered US 6,211,570 B1 listed on the form PTO-1449 filed on Jun. 14, 2004. The examiner notes that the foreign Search Report relates to an application titled "Semiconductor device including porous insulating materials and manufacturing method therefor." The instant application is titled "Dry color toner for electrostatic image development."

3. The rejection of claims 1-4, 6, and 7 under 35 U.S.C. 112, second paragraph, set forth in the office action mailed on Apr. 1, 2004, which incorporated by reference the office action mailed on Feb. 4, 2004 (CTNF020404), paragraph 5, has been mooted by the cancellation of claims 1-4, 6, and 7.

The rejections of claims 1-4, 6 and 7 under 35 U.S.C. 103(a) over the cited prior art, set forth in CTNF020404, paragraphs 7-10, 14, and 15, have been mooted by the cancellation of claims 1-4, 6 and 7.

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4. The following is a quotation of the second paragraph of 35

U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 8 and 12-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 is indefinite in the phrase "phase inversion accelerator which may be methanol, ethanol, isopropanol . . . and ferric chloride" (emphasis added) because it is not clear what is the scope of the term "may be." It is not clear whether the claim requires that the phase inversion accelerator be all of 17 compounds recited in instant claim 8 (the plain language reading), or whether the 17 compounds are merely exemplary.

Claim 12 is indefinite in the phrase "the binder resin" for lack of antecedent basis in claim 8, from which claim 12 depends. Claim 8 recites the presence of a polyester resin having a carboxyl group, not the binder resin as recited in instant claim 12. It is not clear whether the "binder resin" recited in instant claim 12 refers to the polyester resin having a carboxyl group recited in instant claim 8 or to another resin.

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Claims 14-17 are indefinite in the phrase "[a] spherical dry toner for electrostatic image development according to claim 8" for lack of antecedent basis in claim 8. Claim 8 is drawn to a method of making a spherical dry toner, not to a toner.

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. In the interest of compact prosecution, the examiner has interpreted the claim language in claim 8 to require that the phrase inversion accelerator be one of the 17 compounds recited in instant claim 8. The examiner has also interpreted the claim language in claims 14-17 as referring to a spherical dry toner made by the method according to claim 8. Rejections based on these interpretations are set forth infra.

8. Claims 14-17 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US 6,063,537 (Nakamura), as evidenced by Japanese Patent 2000-81734 (JP'734). See the DERWENT translation of JP'734 for cites.

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Nakamura discloses a magenta toner comprising spherical toner particles having a roundness of 0.981. See Table 2 at col. 27, example M-2. The toner particles comprise a wax and polyester binder resin A, which has a carboxyl group and an acid value of 3.3 mg KOH/g of binder resin, having dispersed therein the magenta pigment C.I. Pigment Red 184. See Table 1 at col. 19, polyester resin A; col. 19, lines 60-61; and col. 21, lines 28-33. Nakamura's polyester binder resin A meets the polyester resin comprising a carboxyl group compositional limitation recited in instant claim 8, from which claims 14-17 depend. Nakamura's roundness has the same definition as the roundness recited in instant claims 15-17. Compare Nakamura, col. 3, lines 1-27, with the instant specification, page 16. The roundness of 0.981 is within the ranges recited in instant claims 15-17. C.I. Pigment Red 184 is identified by JP'734 as comprising two naphthol azo pigments that are within the compositional limitations of formula (1) recited in instant claim 8. See JP'734 and the translation, paragraph 0154.

Instant claims 14-17, which depend from claim 8, are written in product-by-process format. Nakamura does not exemplify making a toner by forming a suspension of color particles emulsified in an aqueous medium as recited in the instant claims. Nakamura's toner M-2 is made by a melt-kneading

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and pulverization method disclosed at col. 20, lines 4-33, and col. 21, lines 28-33. However, as discussed above, spherical toner M-2 disclosed by Nakamura meets the compositional limitations and average roundness recited in the instant claims. Accordingly, toner M-2 of Nakamura appears to be the same or substantially the same as the toner made by the method recited in the instant claims. The burden is on applicants to prove otherwise. In re Marosi, 218 USPQ 289 (Fed. Cir. 1983); In re Thorpe, 227 USPQ 964 (Fed. Cir. 1985); MPEP 2113.

9. Claims 14-17 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US 6,265,125 B1 (Anno), as evidenced by JP'734. See the DERWENT translation of JP'734 for cites.

Anno discloses a magenta toner comprising spherical toner particles having a roundness of 0.986. See Table 3 at col. 20, toner N. The toner particles comprise a wax and polyester binder resin B, which has a carboxyl group and an acid value of 24.9 mg KOH/g of binder resin, having dispersed therein the magenta pigment C.I. Pigment Red 184. Table 2 at col. 15, polyester resin B; col. 16, lines 50-51; and col. 18, lines 26-47. Anno's polyester binder resin B meets the polyester resin having a carboxyl group limitation recited in

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instant claim 8, from which claims 14-17 depend. Anno's roundness has the same definition as the roundness recited in instant claims 15-17. Compare Anno, col. 4, lines 25-53, with the instant specification, page 16. The roundness of 0.986 is within the ranges recited in instant claims 15-17. C.I. Pigment Red 184 is identified by JP'734 as comprising two naphthol azo pigments that are within the compositional limitations of formula (1) recited in instant claim 8. See JP'734 and the translation, paragraph 0154. Anno discloses that its toner can be used in processes to provide full-color images with no fogging. See col. 20, lines 53-54; and Table 4 at col. 23, example 2.

Instant claims 14-17, which depend from claim 8, are written in product-by-process format. Anno does not exemplify making a toner by forming a suspension of color particles emulsified in an aqueous medium as recited in the instant claims. Anno's toner N is made by a melt-kneading and pulverization method disclosed at col. 16, line 60, to col. 17, line 15, and col. 18, lines 27-47. However, as discussed above, spherical toner N disclosed by Anno meets the compositional limitations and average roundness recited in the instant claims. Accordingly, toner N of Anno appears to be the same or substantially the same as the toner made by the method recited

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in the instant claims. The burden is on applicants to prove otherwise. Marosi, supra; Thorpe, supra; MPEP 2113.

10. Claims 8, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anno, as evidenced by JP'734, combined with US 6,183,924 B1 (Nomura). See the DERWENT translation of JP'734 for cites.

Anno, as evidenced by JP'734, discloses a magenta toner as described in paragraph 9 above, which is incorporated herein by reference.

Anno does not disclose making its toner by the steps recited in instant claims 8, 12, and 13. However, Anno discloses that its toner can be obtained by an emulsion dispersion granulation method. Col. 5, line 65.

Nomura discloses an emulsion dispersion granulation method which provides toner particles having a degree of roundness of not less than 0.97. Col. 4, lines 5-12. Nomura's method comprises the steps of: (1) dissolving or dispersing a binder resin and a colorant in an organic solvent to form a mixture; (2) mixing and emulsifying the mixture of step (1) with an aqueous medium in the presence of a base and "isopropyl alcohol" to cause a phase inversion emulsification to form spherical particles; (3) separating the spherical particles from the

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aqueous medium; and (4) drying the separated particles. Col. 9, line 44, to col. 10, line 37; and toner preparation example 1 at col. 19. Nomura teaches that the binder resin can be a polyester resin having an acid value of 1 to 30. Col. 12, lines 20-21. As discussed in paragraph 9, supra, Anno's polyester binder resin B has an acid value of 24.9 mg KOH/g of binder resin. Nomura's method meets the steps of making a spherical toner as recited in instant claims 8, 12, and 13, but for the particular magenta pigment of formula (1) recited in instant claims 8 and 13. However, as discussed in paragraph 9, supra, Anno teaches a spherical toner comprising magenta pigment C.I. Pigment Red 184 that meets the compositional limitations of formula (1) recited in instant claim 8. Moreover, magenta pigment C.I. Pigment Red 184 also meets the compositional limitations of formulas (2) and (5) recited in instant claim 13. Nomura discloses that its method provides toners where the additives, such as colorants, are dispersed and encapsulated. According to Nomura, when additives such as colorants are present on the surface of the toner particles, the triboelectricity of the toner is reduced. Col. 6, lines 46-52. Nomura also discloses that its emulsification process has the advantages over a pulverization process (the process exemplified in Anno) of greater ease of production and lower cost. Col. 7,

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lines 3-5. Nomura further discloses that its process easily provides toners with a sharp particle distribution which results in improved image quality. Col. 7, lines 11-13.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of Anno and Nomura, to make the toner in example N of Anno by the emulsion dispersion granulation method disclosed by Nomura, such that the resultant toner has the roundness required by both Anno and Nomura, because that person would have had a reasonable expectation of successfully obtaining a magenta toner having the benefits disclosed by Anno and Nomura.

11. Claims 8, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anno combined US 2002/0037466 A1 (Kanbayashi) and Nomura.

Anno discloses a magenta toner comprising spherical toner particles as described in paragraph 9 above, which is incorporated herein by reference.

Anno does not exemplify a magenta toner comprising a magenta organic pigment represented by chemical formulas (4) or (7), as recited in instant claim 13. However, Anno does not limit the type of magenta pigment used. Anno discloses that the "various known colorants, such as magenta color . . . may be

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used." Col. 9, lines 6-8. Anno discloses that magenta colorants may include, in addition to C.I. Pigment Red 184, C.I. Pigment Red 31. Col. 9, line 11.

Kanbayashi discloses that magenta toners having a good hue can be provided when a compound represented by formula (1) and a compound of formula (3) are mixed and uniformly dispersed in the toner. Paragraph 0072-0075 and 0077-0078. According to Kanbayashi, the mixture comprising the compound of formula (1) and the compound of formula (3) provides magenta toners having the color tone of magenta in ink processes, and having good light-fastness. Paragraph 0076 and 0086. Kanbayashi discloses that the compound of formula (1) may preferably be represented by compounds of formulas (1-3) and (1-4). According to Kanbayashi, "[t]his is preferable in view of the color tone control, stabilization of charge and so forth." Paragraphs 0087-0088. Formulas (1-3) and (1-4) are within the compositional limitations of formula (1) recited in instant claim 8. Moreover, formulas (1-3) and (1-4) have the identical chemical structures as the organic pigments of formulas (4) and (7), respectively, recited in instant claim 13.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of Kanbayashi, to use Kanbayashi's mixture comprising the compound of formula (3) and

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the compound represented by formulas (1-3) or (1-4), as the magenta pigment in toner N of Anno, because that person would have had a reasonable expectation of successfully obtaining a magenta toner having good hue and light-fastness as taught by Kanbayashi.

Anno does not disclose making its toner by the steps recited in instant claims 8, 12, and 13. However, Anno discloses that its toner can be obtained by an emulsion dispersion granulation method. Col. 5, line 65.

Nomura discloses an emulsion dispersion granulation method which provides toner particles having a degree of roundness of not less than 0.97. Nomura's method meets the steps of making a spherical toner as recited in instant claims 8, 12, and 13, but for the particular magenta pigment recited in instant claims 8 and 13. However, as discussed supra, the combined teachings of Anno and Kanbayashi render obvious a spherical toner comprising a magenta pigment of formulas (4) or (7) recited in instant claim 13. The discussions of Nomura and Anno in paragraph 10 above are incorporated herein by reference.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of Anno and Nomura, to make the toner rendered obvious over the combined teachings of in Anno and Kanbayashi by the emulsion dispersion granulation

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method disclosed by Nomura, such that the resultant toner has the roundness required by both Anno and Nomura, because that person would have had a reasonable expectation of successfully obtaining a magenta toner having the benefits disclosed by Anno and Nomura.

12. Claims 8, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anno combined with JP'734 and Nomura. See the DERWENT translation of JP'734 for cites.

Anno discloses a magenta toner comprising spherical toner particles, as described in paragraph 9 above, which is incorporated here by reference.

Anno does not exemplify a magenta toner comprising a magenta organic pigment represented by formula (4) as recited in instant claim 13. However, Anno does not limit the type of magenta pigment used. Anno discloses that the "various known colorants, such as magenta color . . . may be used." Col. 9, lines 6-8. Anno discloses that magenta colorants may include, in addition to C.I. Pigment Red 184, C.I. Pigment Red 31. Col. 9, line 11.

JP'734 discloses a magenta toner that has high coloring power, colorfulness, and brightness. Translation, paragraph 0027. The toner comprises a polyester resin having an

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acid value of 2 to 25 mg KOH/g and a magenta colorant represented by the formula (I), such as C.I. Pigment Red 31 and C.I. Pigment Red 184. Translation, paragraphs 0031-0032, example 6 in paragraphs 0151-0152, and example 7 in paragraphs 0153 and 0154. The colorant C.I. Pigment Red 31 is within the compositional limitations of formula (1) recited in instant claim 8; and has the identical chemical structure as the organic pigment of formula (4) recited in instant claim 13. As discussed in paragraph 9 above, Anno's magenta toner comprises a polyester having an acid value of 24.9 mg KOH/g and the magenta pigment C.I. Pigment Red 184. The toner polyester resin taught by Anno is within the polyester limitation disclosed by JP'734. JP'734 shows that magenta toners comprising the magenta colorant C.I. Pigment Red 184 and toners comprising the colorant C.I. Pigment Red 31 provide similar results in color reproduction, light resistance, OHP (overhead projection) transparency, image density, and charge stability. See Table 2, examples 6 and 7 (second and third rows from the bottom), and the accompanying text.

According to JP'734, when the toner comprises the magenta colorant of formula (I), the toner has an "effect remarkable in electrical charging stabilization of a color toner." Translation, paragraph 0034. The toner also has excellent light

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resistance. Translation, paragraphs 0041 and 0043, example 6 in Table 2, and the accompanying text. JP'734 discloses that the magenta colorant of formula (I) shows the "color phase shifted to red tinge." Thus, the magenta toner has the "spectrum property desirable as a magenta toner for the full-color image formation." Translation, paragraph 0046.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of JP'734, to use the equivalent magenta colorant C.I. Pigment Red 31, as the magenta pigment in Anno's toner N, because that person would have had a reasonable expectation of successfully obtaining a magenta toner having good hue, light-fastness, and coloring power as taught by JP'734.

Anno does not disclose making its toner by the steps recited in instant claims 8, 12, and 13. However, Anno discloses that its toner can be obtained by an emulsion dispersion granulation method. Col. 5, line 65.

Nomura discloses an emulsion dispersion granulation method which provides toner particles having a degree of roundness of not less than 0.97. Nomura's method meets the steps of making a spherical toner as recited in instant claims 8, 12, and 13, but for the particular magenta pigment of formula (1) recited in instant claim 8. However, as discussed supra, the combined

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teachings of Anno and JP'734 render obvious a spherical toner comprising a magenta pigment of formula (4) recited in instant claim 13. The discussions of Nomura and Anno in paragraph 10 above are incorporated herein by reference.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of Anno and Nomura, to make the toner rendered obvious over the combined teachings of in Anno and JP'734 by the emulsion dispersion granulation method disclosed by Nomura, such that the resultant toner has the roundness required by both Anno and Nomura, because that person would have had a reasonable expectation of successfully obtaining a magenta toner having the benefits disclosed by Anno and Nomura.

13. Claims 8, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anno combined with US 2002/0058193 A1 (Tosaka), as evidenced by the ACS File Registry Nos. 56396-10-2, 6448-96-0, and 12225-06-8, and Nomura. See the DERWENT translation of JP'734 for cites.

Anno discloses a magenta toner comprising spherical toner particles, as described in paragraph 9 above, which is incorporated here by reference.

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Anno does not exemplify a magenta toner comprising a magenta organic pigment represented by formulas (3), (4), or (6), as recited in instant claim 13. However, Anno does not limit the type of magenta pigment used. Anno discloses that the "various known colorants, such as magenta color . . . may be used." Col. 9, lines 6-8. Anno discloses that magenta colorants may include, in addition to C.I. Pigment Red 184, C.I. Pigment Red 31. Col. 9, line 11.

Tosaka discloses monoazo pigment compositions comprising a monoazo pigment of a specified structure and specified amounts of a β -naphthol compound of formula (2) and an aromatic amine of formula (3). Paragraphs 0046-0057. Tosaka teaches that the monoazo pigment of a specified structure may include C.I. Pigment Red 31, 150, 176, and 184, preferably C.I. Pigment Red 31, 150, and 176. Paragraphs 0080-0081, Table 1-1 at page 25, production examples 1-1 through 1-8, and Table 1-2 at page 26, toners 1-6 through 1-8. The ACS File Registry Nos. 6448-96-0, 56396-10-2, and 12225-06-8, respectively identify C.I. Pigment Red 31, 150, and 176 as having the identical chemical structures as the organic pigments of formulas (4), (3), and (6), respectively, recited in instant claim 13. Tosaka discloses that magenta toners that comprise its monoazo pigment compositions have excellent color reproducibility, gradation

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characteristic, light-fastness, and chargeability.

Paragraph 0039, and Table 1-3 at page 27, toners 1-6 through 1-8. The magenta toners are capable of forming a fixed image with excellent transparency. Paragraph 0042. According to Tosaka, the magenta toners are also capable of providing high quality full-color images with excellent color reproducibility. Paragraph 0041.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of Tosaka, to use Tosaka's monoazo pigment composition as the magenta pigment in toner N of Anno, because that person would have had a reasonable expectation of successfully obtaining a magenta toner having the benefits disclosed by Tosaka.

Anno does not disclose making its toner by the steps recited in instant claims 8, 12, and 13. However, Anno discloses that its toner can be obtained by an emulsion dispersion granulation method. Col. 5, line 65.

Nomura discloses an emulsion dispersion granulation method which provides toner particles having a degree of roundness of not less than 0.97. Nomura's method meets the steps of making a spherical toner as recited in instant claims 8, 12, and 13, but for the particular magenta pigment recited in instant claims 8 and 13. However, as discussed supra, the combined teachings of

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Anno and Kanbayashi render obvious a spherical toner comprising a magenta pigment of formulas (3), (4) or (6) recited in instant claim 13. The discussions of Nomura and Anno in paragraph 10 above are incorporated herein by reference.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of Anno and Nomura, to make the toner rendered obvious over the combined teachings of in Anno and Tosaka by the emulsion dispersion granulation method disclosed by Nomura, such that the resultant toner has the roundness required by both Anno and Nomura, because that person would have had a reasonable expectation of successfully obtaining a magenta toner having the benefits disclosed by Anno and Nomura.

14. Applicants' arguments filed in Amdt061704 with respect to the rejections over Anno combined with Nomura set forth in paragraphs 10-13 above have been fully considered but they are not persuasive.

Applicants assert that neither Anno nor the prior art of Tosaka, Kanbayashi, or JP'734 disclose the use of a phase inversion accelerator, "which may be one of the alcohol solvents recited in the claim." Applicants also assert that Nomura does

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not disclose the combination of a phase inversion accelerator and a polyester resin as recited in instant claim 8.

However, as discussed in the rejection in paragraph 10, Anno discloses that its toner may be obtained from an emulsion dispersion granulation method. Nomura discloses an emulsion dispersion granulation method, and the benefits of making toners with said method. Nomura further teaches that the method comprises the step of emulsifying a mixture, which comprises a binder resin and a colorant dissolved in an organic solvent, with an aqueous medium in the presence of a base and isopropyl alcohol to "cause phase inversion emulsification" to form resin particles. Isopropyl alcohol meets the isopropanol compound recited in instant claim 8 that is identified as a phase inversion accelerator. Although Nomura does not explicitly identify isopropyl alcohol is a phase inversion accelerator. Nomura clearly teaches that its emulsifying step causes phase inversion emulsification. Hence, Nomura's isopropyl alcohol is a phase inversion accelerator. The burden is on applicants to prove otherwise.

Accordingly, the rejections of claims 8, 12, and 13 over the combined teachings of Anno and Nomura, alone or combined with the other cited references, stand.

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17. Claims 14-17 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 5-7, 9-11, 24, and 25 of copending Application No. 09/791,860 (Application'860) in view of JP'734. See the DERWENT translation of JP'734 for cites.

This is a provisional obviousness-type double patenting rejection.

Reference claim 1 recites a toner comprising spherical toner particles comprising a particular polyester resin and a colorant and having an average roundness of 0.97 or more. The average roundness of 0.97 or more is within the roundness limitations recited in instant claims 15 and 16, and overlaps the range of 0.98 or more recited in instant claim 17.

Reference claim 7, which depends from reference claim 1, further requires that the polyester resin have a carboxyl group and an acid value of 1-30 mg KOH/g, which meets the compositional limitation recited in instant claim 8, from which claims 14-17 depend.

The reference claims do not recite the use of a magenta colorant as recited in the instant claims.

JP'734 discloses a magenta toner comprising a polyester resin having an acid value of 2 to 25 mg KOH/g and the magenta colorant C.I. Pigment Red 31. The colorant C.I. Pigment Red 31

is within the compositional limitations of formula (1) recited in instant claim 8. The discussion of JP'734 in paragraph 12 is incorporated herein by reference.

It would have been obvious for a person having ordinary skill in the art to use the magenta colorant disclosed by JP'734 as the colorant in the toner recited in the reference claims of Application'860, because that person would have had a reasonable expectation of successfully obtaining a magenta toner having the benefits disclosed by JP'734.

Instant claims 14-17, which depend from claim 8, are written in product-by-process format. The claims in Application'860 do not recite the use of a phase inversion accelerator in the emulsifying step as recited in instant claim 8. Rather, reference claim 16 recites that the phase inversion accelerator is an alcohol. However, as discussed above, the spherical toner rendered obvious over the subject matter recited in Application'890 in view of the teachings of JP'734 meets the compositional limitations and average roundness recited in the instant claims. Accordingly, the spherical toner rendered obvious over the subject matter recited in Application'890 in view of the teachings of JP'734 appears to be the same or substantially the same as the toner made by the method recited in the instant claims. The burden is on

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applicants to prove otherwise. Marosi, supra; Thorpe, supra;
MPEP 2113.

15. In the alternative, the examiner has interpreted the claim language in claim 8 as being merely exemplary and does not require that the phase inversion accelerator be all of the 17 compounds recited in instant claim 8. In other words, claim 8 merely recites that the phase inversion accelerator can be, for example, all of the 17 compounds recited in instant claim 8. Rejections based on this interpretation are set forth infra.

16. Claims 8, 12, and 13 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 5-7, 9-11, and 14-25 of copending Application'860 in view of Kanbayashi.

Claims 8, 12, and 13 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 5-7, 9-11, and 14-25 of copending Application'860 in view of JP'734. See the DERWENT translation of JP'734 for cites.

Claims 8, 12, and 13 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 5-7, 9-11, and 14-25 of

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copending Application'860 in view of Tosaka, as evidenced by the ACS File Registry Nos. 56396-10-2, 6448-96-0, and 12225-06-8.

These are provisional obviousness-type double patenting rejections.

As discussed in paragraph 14 above, reference claim 1 recites a toner comprising spherical toner particles comprising a particular polyester resin and a colorant and having an average roundness of 0.97 or more.

Reference claim 15, which depends from reference claim 14, which depends from reference claim 1, recites a method of making the toner in reference claim 1, which comprises steps that meet the steps recited in instant claims 8, 12, and 13, but for the presence of the particular magenta pigment recited in the instant claims. Reference claim 15 requires that the binder resin in the toner be a polyester resin having a carboxyl group and that a phase inversion accelerator be used in the emulsifying step. Reference claim 16, which depends from reference claim 15, requires that the phase inversion accelerator be an alcohol.

Kanbayashi discloses that magenta toners having a good hue can be provided when a compound represented by formula (3) and a compound of formulas (1-3) or (1-4) are mixed and uniformly dispersed in the toner. Formulas (1-3) and (1-4) have the

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identical chemical structures as the organic pigments of formulas (4) and (7), respectively, recited in instant claim 13. The discussion of Kanbayashi in paragraph 11 above is incorporated herein by reference.

JP'734 discloses a magenta toner comprising a polyester resin having an acid value of 2 to 25 mg KOH/g and the magenta colorant C.I. Pigment Red 31. The colorant C.I. Pigment Red 31 has the identical chemical structure as the organic pigment of formula (4) recited in instant claim 13. The discussion of JP'734 in paragraph 12 is incorporated herein by reference. As discussed above, reference claim 7 requires that the toner polyester resin have an acid value of 1 to 30 mg KOH/g, which overlaps the range of 2 to 25 mg KOH/g disclosed by JP'734.

Tosaka discloses monoazo pigment compositions that have the identical chemical structures as the organic pigments of formulas (3), (4), and (6), respectively, recited in instant claim 13. The discussions of Tosaka and the ACS File Registry numbers in paragraph 13 are incorporated herein by reference.

It would have been obvious for a person having ordinary skill in the art to use the magenta colorant disclosed by Kanbayashi, JP'734, or Tosaka, as the colorant in the method of making the spherical toner of reference claim 1 recited in reference claims 15 and 16 of Application'860, because that

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person would have had a reasonable expectation of successfully obtaining a magenta toner having the benefits disclosed Kanbayashi, JP'734, or Tosaka.

Applicants' arguments filed in Amdt061704 have been fully considered but they are not persuasive.

Applicants assert that the amendment to claim 8 filed in Amdt061704 overcomes the rejections.

However, based on the examiner's interpretation of the claim language in claim 8 set forth in paragraph 15 above, claim 8 does not require that the phrase inversion accelerator be all of the 17 compounds recited in instant claim 8. Thus, for the reasons discussed in the above rejections, the subject matter recited in Application'860 in view of the teachings of the prior art render the instant claims obvious. Accordingly, the rejections stand.

17. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS**

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of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (571) 272-1382. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Mark Huff, can be reached on (571) 272-1385. The central fax phone number is (703) 872-9306.

Any inquiry of papers not received regarding this communication or earlier communications should be directed to Supervisory Application Examiner Ms. Claudia Sullivan, whose telephone number is (571) 272-1052.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JLD

Sep. 6, 2004

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